

## **ABSTRACT**

A method and system for providing a halftoned image is disclosed. The method and system comprise scaling the halftoned image by performing pel repetition utilizing an error diffusion algorithm such that artifacts are minimized. According a system and method in accordance with the present invention performs pel repetition using error diffusion technology, so that any resulting “artifacts” are realized as high-frequency image addition, making them much less visible. A system and method in accordance with the present invention provides adjustability in the computational complexity of the scaling, so that quality can be traded off continuously against the amount of processing power required.